

# Study Questions Safety Of Children's Exposure To Cell Phones During Prenatal And Early Childhood Period

---

First of its kind study finds possible link between cell phone exposure and behavioral problems in young children and urges additional research

**Date:** Wednesday, May 21, 2008

Los Angeles, CA - A large-scale, ongoing study by UCLA School of Public Health and University of Aarhus, Institute of Public Health researchers in Denmark has found that the children of mothers who used cell phones while pregnant, and young children who used cell phones themselves, had more behavioral problems at the age of seven than non-cell phone users. The findings were published online in the journal, *Epidemiology*, and will appear in its July issue.

"These results were unexpected and should be interpreted cautiously," say Drs. Leeka Kheifets and Jørn Olsen, study authors of the paper. "We do not know how this use could cause behavioral problems, and the association between these two factors could turn out to be unfounded. On the other hand, if cell phone use early in life has impact on brain functions, it should be seen as a public health concern."

It is estimated that there are 2.5 billion cell phone users worldwide. While most epidemiologic studies of exposure to cell phone radiofrequency fields have focused on the incidence of certain types of cancers in adults, this is the first study to explore the physiologic effects on potentially vulnerable populations such as fetuses and very young children.

The study looked at 13,159 Danish children born in 1997 and 1998 who are participants of the Danish National Birth Cohort. Mothers completed a series of telephone interviews and self-administered questionnaires starting at 12 weeks of pregnancy until the child reached 18 months of age and then again at seven years of age. Mothers were asked about cell phone use during pregnancy and current use by the child. Participants also answered a battery of questions about their child's behavior.

Nearly 30 percent of the seven year olds in the study used cell phones and 11 percent of children were exposed to cell phones in the womb and in early childhood. Children who were exposed to cell phones before and/or after birth tended to have higher prevalence of emotional symptoms, behavioral problems, inattention, hyperactivity and problems with peers. When looking at the combined use of cell phones during pregnancy and in childhood, children were 80 percent more likely to have behavioral problems compared to children who do not use a cell phone and whose mothers did not use cell phones during pregnancy. When looking at cell phone use during pregnancy alone and not during childhood, children were 54 percent more likely to have behavioral problems.

But the investigators make clear that these observed associations may be caused by other factors than cell phone use and that further study is necessary. "We hope that our results will inspire others to study cell phone use early in life" say Drs. Kheifets and Olsen. "If cell phone use during pregnancy or in early childhood causes an increase in childhood behavioral problems or other health problems we need to know as soon as possible. Children may well be more susceptible than adults to exposure from cell phones."

The results are surprising because the expected exposure to the fetus is very low. But the investigators add that a child's immature nervous system is extremely vulnerable to toxicants, which can result in behaviors that may not emerge until well into childhood, adolescence or adulthood, therefore it is valuable to continue to track the health outcomes of these children.

"Not knowing what may cause a health problem related to cell phones does not mean that the problem does not exist. We have to keep an open mind, especially for a technology that is becoming commonplace around the world."

The UCLA School of Public Health is dedicated to enhancing the public's health by conducting innovative research; training future leaders and health professionals; translating research into policy and practice; and serving local, national and international communities. For more information, see <http://www.ph.ucla.edu/> (<http://ph.ucla.edu><http://www.ph.ucla.edu/>).

## Press Releases

---

**ronald s. brookmeyer named dean of the ucla fielding school of public health**

January 8, 2020

**fielding school signs mou with sun yat-sen university school of public health in china**

January 3, 2020

**new study shows gender differences in health insurance and access among californians**

December 11, 2019

**planning a trip abroad? before you pack, check the air pollution levels**

November 25, 2019

**ucla fielding school of public health scientists rank among world's most-cited researchers**

November 19, 2019

[all press releases >](#)